# OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

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#### **OPINION 548**

Validation under the Plenary Powers of the generic name *Toxorhynchites* Theobald (Class Insecta, Order Diptera), as published in 1901 in the *Journal of Tropical Medicine* 

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#### INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

#### COMPOSITION AT THE TIME OF THE ADOPTION OF THE **RULING GIVEN IN OPINION 548**

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Professor Ernst MAYR (Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.) (4th December 1954)

Professor Enrico Tortonese (Museo di Storia Naturale "G. Doria", Genova, Italy) (16th December 1954)

#### **OPINION 548**

## VALIDATION UNDER THE PLENARY POWERS OF THE GENERIC NAME "TOXORHYNCHITES" THEOBALD (CLASS INSECTA, ORDER DIPTERA), AS PUBLISHED IN 1901 IN THE "JOURNAL OF TROPICAL MEDICINE"

RULING:—(1) Under the Plenary Powers the generic name *Toxorhynchites* [Theobald MS.] Howard, as published in June 1901 in the work entitled "Mosquitoes" is hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy.

- (2) The under-mentioned generic name is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1341:—
  - Toxorhynchites Theobald, July 1901, published in Volume 4 of the serial entitled Journal of Tropical Medicine, as validated under the Plenary Powers in (1) above (gender: masculine) (type species, by monotypy on the first occasion on which a nominal species was cited as belonging to this genus: Toxorhynchites brevipalpis Theobald, November 1901).
- (3) The under-mentioned specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers severally specified below:—
  - (a) brevipalpis Theobald, Nov. 1901, as published in the combination Toxorhynchites brevipalpis (specific name of type species of Toxorhynchites Theobald, July 1901) (Name No. 1615);
  - (b) rutila Coquillett, 1896, as published in the combination Megarhinus rutila (Name No. 1616).
- (4) The under-mentioned generic name is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1255:—
  - Toxorhynchites [Theobald MS.] Howard, June 1901, as suppressed under the Plenary Powers in (1) above.
- (5) The under-mentioned specific name is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 578:
  - rutillus Theobald, 1901, as published in the combination Megarhinus rutillus (an Erroneous Subsequent Spelling for rutila Coquillett, 1896, as published in the combination Megarhinus rutila).
- (6) The under-mentioned family-group name is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 262:—
  - TOXORHYNCHITINAE Theobald, 1905 (type genus: *Toxorhynchites* Theobald, 1901).

#### I. THE STATEMENT OF THE CASE

On 24th September 1956 Dr. Alan Stone (U.S. Department of Agriculture, Agricultural Research Service, Entomology Research Branch, Washington, D.C., U.S.A.) addressed a letter to the Office of the Commission with which he enclosed the draft of an application proposed to be submitted jointly by

himself and Dr. Kenneth L. Knight (Bureau of Medicine and Surgery, Department of the Navy, Washington, D.C., U.S.A.), in which the Commission would be asked to use its Plenary Powers to validate the generic name Toxorhynchites (Class Insecta, Order Diptera) as from the time of its publication by Theobald in July 1901 by suppressing the same name as published in a different sense by Howard in June of that year. A few minor procedural points were found to arise on this case but these were quickly disposed of, with the result that on 11th January 1957 the above specialists found it possible to submit the following definitive application for consideration:—

Proposed use of the Plenary Powers to validate the generic name "Toxorhynchites" Theobald (Class Insecta, Order Diptera), as published in 1901 in the "Journal of Tropical Medicine".

By ALAN STONE

(Entomology Research Branch, U.S. Department of Agriculture, Washington, D.C., U.S.A.)

and

#### KENNETH L. KNIGHT

(Bureau of Medicine and Surgery, Department of the Navy, Washington, D.C., U.S.A.)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to secure that the generic name *Toxorhynchites* (Class Insecta, Order Diptera) shall be made available for use in its accustomed sense with *Toxorhynchites brevipalpis* Theobald, 1901, as type species. For this purpose the Commission is asked to suppress the above generic name as published by Howard in anticipation of its publication by Theobald, since, if this generic name were to be recognised as from Howard, a most confusing change in the type species of the genus would be involved. The relevant facts are set out in the following paragraphs.

2. The generic name Toxorhynchites first appeared in Mosquitoes by L. O. Howard, published by McClure, Phillips and Company, New York, 1901, pp. 154, 155, 235, and 240. This was copyrighted in June 1901, a copy in the Surgeon General's Library, Washington, D.C. is stamped as having been received on 5th July 1901, and it was reviewed in Science on 9th August 1901. On page 234 Howard wrote, "Two other new generic names proposed by Mr. Theobald, viz.: Toxorhynchites and Conchyliastes, have been adopted and are characterized in the tables. It will be noticed that the characterizations are printed with quotation marks, and that they are followed by Mr. Theobald's name in parenthesis. This method of printing will make Mr. Theobald responsible for these genera as well as for Stegomyia, in the event that this book is issued from the press in advance of his publication". On page 235 the characters in the key leading to *Toxorhynchites* are given as follows: "Palpi in the male at least nearly as long as the proboscis; in the female less than one-half as long; Legs destitute of such [nearly erect] scales; 'Colors, green and bluish, proboscis very strongly curved' (Theobald)". It should be noted that only the characters in the last couplet are in quotation marks. On page 240 under Toxorhynchites Howard wrote, "These are among the largest of our mosquitoes and closely resemble those of the following genus [Megarhinus]. Our single species has all the feet marked with white: rutilus Coq.". The figure of the female of T. rutilus on page 154 shows the palpi short.

- 3. If we accept *Toxorhynchites* as from "Theobald in Howard", then it is a monobasic genus with *Megarhinus rutila* Coquillett, 1896 (*Canad. Ent.* 28:44)\* as the type species. To accept this would be unfortunate since *Toxorhynchites* has universally been accepted as a genus (or subgenus) in which the palpi of the female are only about one-fourth as long as the proboscis, whereas in *rutilus* the palpi are about two-thirds as long as the proboscis. Howard apparently had a female of *rutilus* in which the palpi were incomplete and he failed to realize the fact.
- 4. The name *Toxorhynchites* was next published by Theobald on 15th July 1901 in *The Journal of Tropical Medicine*, vol. 4, p. 234. Here it was differentiated from *Megarhinus* and characterized in a key as, "Proboscis formed for suction; metanotum nude . . . Palpi long in male, shorter in female; first submarginal cell very small; proboscis bent. . . . Palpi three-jointed in female. . . . Scales of the head are all arranged like tiles on a roof, flat; thorax with spindle-shaped and broad scales over the wings; scutellum with broad scales; caudal tuft present on last few apical abdominal segments. . . . female palpi three-jointed and short". No species was included by name.
- 5. Then, in A Monograph of the Culicidae, vol. 1, p. 244, published on 23rd November 1901, Theobald described the new genus Toxorhynchites based on the single species T. brevipalpis n. sp., p. 235. This species has short palpi in the female. Under Megarhinus rutillus [sic.] on page 244 Theobald wrote:—

A figure of this species is given by Howard, in his "Notes on the Mosquitoes of the United States" (Bull. 25, New Series, U.S.A. Dept. Agriculture, fig. 21, p. 46). In this the palpi are shown very short; probably they are broken off; if not, it comes in the genus Toxorhynchites.

[Footnote] Mr. Coquillett writes me that this belongs to Megarhinus, not Toxorhynchites.

The figure referred to is the same as that published in Howard's Mosquitoes.

- 6. Edwards (1912, Bull. ent. Res. 3:3) discussed the use of the name Toxorhynchites in Howard, giving reasons for not accepting the name as valid in that publication. This conclusion has been accepted ever since then, although Edwards was incorrect about the invalidity of the name.
- 7. The genus *Toxorhynchites* Theobald is currently treated as the type genus of a family-group taxon within the family CULICIDAE. It is believed that the earliest such name is TOXORHYNCHITINAE Theobald, 1905 (in Wytsmann, *Gen. Ins.* 26:5).
- 8. Because the name *Toxorhynchites* has universally been accepted as having as its type species *T. brevipalpis* Theobald, a species with short palpi in the female, and in order to stabilize the name in accordance with present usage, we recommend that the International Commission on Zoological Nomenclature should:—
  - (1) use its Plenary Powers to suppress the generic name *Toxorhynchites*Howard, June 1901 (*Mosquitoes*) for the purposes both of the Law
    of Priority and of the Law of Homonymy;

<sup>\*</sup>Owing to this species having been placed in a genus having a name of masculine gender its specific name has rather consistently been spelled *rutilus* ever since it was first published.

- (2) place the under-mentioned generic name on the Official List of Generic Names in Zoology:—
  - Toxorhynchites Theobald, July 1901 (J. trop. Med. 4:234), as validated under the Plenary Powers in (1) above (gender: masculine) (type species, by monotypy: Toxorhynchites brevipalpis Theobald, November 1901);
- (3) place the under-mentioned specific names on the Official List of Specific Names in Zoology:—
  - (a) brevipalpis Theobald, November 1901, as published in the combination Toxorhynchites brevipalpis (specific name of type species of Toxorhynchites Theobald, July 1901);
  - (b) rutila Coquillett, 1896, as published in the combination Megarhinus rutila;
- (4) place the under-mentioned generic name on the Official Index of Rejected and Invalid Generic Names in Zoology:—
  - Toxorhynchites Howard, June 1901, as suppressed under the Plenary Powers in (1) above;
- (5) place the under-mentioned specific name on the Official Index of Rejected and Invalid Specific Names in Zoology:
  - rutillus Theobald, 1901, as published in the combination Megarhinus rutillus (an Erroneous Subsequent Spelling of rutila Coquillett, 1896, as published in the combination Megarhinus rutila);
- (6) place the under-mentioned family-name on the Official List of Family-Group Names in Zoology:—
  - TOXORHYNCHITINAE Theobald, 1905 (type genus: Toxorhynchites Theobald, 1901).

#### II. THE SUBSEQUENT HISTORY OF THE CASE

- 2. Registration of the present application: Upon the receipt of Dr. Alan Stone's preliminary communication in September 1956 the question of the possible use of the Plenary Powers for the purpose of preserving the generic name *Toxorhynchites* Theobald, July 1901 (Class Insecta, Order Diptera) was allotted the Registered Number Z.N.(S.)1166.
- 3. Publication of the present application: The present application was sent to the printer on 18th January 1957 and was published on 29th March of the same year in Part 4 of Volume 13 of the *Bulletin of Zoological Nomenclature* (Stone (A.) & Knight (E.L.), 1957, *Bull. zool. Nomencl.* 13: 128–131).
- 4. Issue of Public Notices: Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, Bull. zool. Nomencl. 4:51–56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers for the purpose of validating the generic name Toxorhynchites as from Theobald, July 1901, was given on 29th March 1957 (a) in Part 4 of Volume 13 of the Bulletin of Zoological Nomenclature (the Part in which the application by Dr. Stone and Dr. Knight was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general zoological serials and to seven entomological serials in Europe and America.

5. Support received from Ernestine B. Thurman: On 7th June 1957 Lt. Commander Ernestine B. Thurman (Sanitarian (R)) (Department of Health, Education and Welfare, Public Health Service, National Institutes of Health, Maryland, U.S.A.) addressed to the Office of the Commission the following letter of support for the proposals submitted in the present case (Thurman (E.B.), 1957, Bull. zool. Nomencl. 13: 263):—

This is to report that I concur with the opinions as stated by Drs. Alan Stone and Kenneth L. Knight (Commission Reference Z.N.(S.)1166) dealing with the genus *Toxorhynchites* Theobald, 1901 (Class Insecta, Order Diptera).

6. No Objection Received: No objection to the present application was received from any source.

### III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

- 7. Issue of Voting Paper V.P.(57)57: On 11th October 1957, a Voting Paper (V.P.(57)57) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name Toxorhynchites Theobald, July 1901 (Class Insecta, Order Diptera), as set out in Points (1) to (6) in paragraph 8 (pp. 130–131) of Volume 13 of the Bulletin of Zoological Nomenclature" [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present Opinion].
- 8. Two suggestions on questions of drafting received from Members of the Commission during the Prescribed Voting Period: During the Prescribed Voting Period two suggestions on questions of drafting were received from members of the Commission, the first, from Professor J. Chester Bradley (Ithaca, N.Y., U.S.A.), the second, from Dr. L. B. Holthuis (Leiden, The Netherlands). point raised by Professor Bradley was that it was not strictly correct to state (as the applicants had done) that *Toxorhynchites brevipalpis* Theobald, 1901, was the type species of *Toxorhynchites* Theobald, 1901, by monotypy, for, when that generic name was first published by Theobald in July 1901, no nominal species was cited as belonging to the genus so named. It was not until November 1901 that a nominal species was first cited under the generic name Toxorhynchites; the new nominal species Toxorhynchites brevipalpis Theobald being then so cited. As that was the sole such species then cited, it ranked under a decision by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, Bull. zool. Nomencl. 4:160, 346) as the sole originally included species. It was in this special sense only that the above species was the type species of Toxorhynchites Theobald. The point raised by Dr. Holthuis was concerned with the method to be adopted in citing the name Toxorhynchites as published by Howard in June 1901; it seemed reasonable that some word or words should be inserted to make it clear that Howard did not look upon himself as publishing a new name but considered himself rather as employing a name of Theobald's. As regards Professor Bradley's point it was arranged that in the Ruling to be given in the present case the statement that Toxorhynchites brevipalpis Theobald was the type species of the genus Toxorhynchites Theobald by monotypy should be qualified by words making it clear that it was type species by monotypy only under the Paris Congress's Rule referred to above; as regards Dr. Holthuis' point, it was arranged that words should be inserted to make it clear that when in June 1901 the above name was published by Howard it was already a manuscript name of Theobald's.

- **9.** The Prescribed Voting Period: As Voting Paper V.P.(57)57 was issued under the Three-Month Rule, the Prescribed Voting Period closed on 11th January 1958.
- 10. Particulars of the Voting Paper V.P.(57)57: At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)57 was as follows:—
  - (a) Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received):

Holthuis; Vokes; Bonnet; Mayr; Bradley (J.C.); Riley; do Amaral; Lemche; Hering; Prantl; Esaki; Bodenheimer; Boschma; Hemming; Mertens; Hankó; Miller; Stoll; Kühnelt; Cabrera; Sylvester-Bradley; Tortonese; Key;

(b) Negative Votes:

None;

(c) Voting Papers not returned, two (2):

Dymond; Jaczewski.

- 11. Declaration of Result of Vote: On 12th January 1958, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)57, signed a Certificate that the Votes cast were as set out in paragraph 10 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.
- 12. Preparation of the Ruling given in the present "Opinion": On 14th May 1958, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(57)57.
- 13. Original References for Generic and Specific Names. The following are the original reference for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion*:—

brevipalpis, Toxorhynchites, Theobald, Nov. 1901, Mon. Culic. 1:235

rutila, Megarhinus, Coquillett, 1896, Canad. Ent. 28:44

rutillus, Megarhinus, Theobald, Nov. 1901, Mon. Culic. 1: 244

Toxorhynchites [Theobald MS.] Howard, June 1901, Mosquitoes: 154, 155, 235, 240

Toxorhynchites Theobald, July 1901, J. trop. Med. 4: 234

14. Original Reference for a Family-Group Name. The following is the original reference for the family-group name placed on the *Official List* of names of taxa of the family-group category by the Ruling given in the present *Opinion*:—

TOXORHYNCHITINAE Theobald, 1905, in Wytsmann, Gen. Ins. 26:5

- 15. Compliance with Prescribed Procedures: The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.
- 16. "Opinion" Number: The present *Opinion* shall be known as *Opinion* Five Hundred and Forty-Eight (548) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourteenth day of May, Nineteen Hundred and Fifty-Eight.

Secretary to the International Commission on Zoological Nomenclature

FRANCIS HEMMING